

Customer No.: 31561
Application No: 10/064,095
Docket NO.:9068-US-PA

Claim Amendment

Please amend the claims according to the following listing of claims and substitute it for all prior versions and listings of claims in the application.

1. (currently amended) A complementary metal oxide semiconductor (CMOS) image sensor device comprising:

a substrate having an isolation structure that defines an active region;

a photodiode sensing region located in the substrate;

a reset transistor located on the active region of the substrate, wherein the reset transistor has a source region connected to a part of the photodiode sensing region; and

a ~~buried-contact~~ local interconnect, wherein a first end of the ~~buried-contact~~ local interconnect is located on the substrate between the photodiode sensing region and the reset transistor and extended over the isolation structure to cover ~~the~~ a periphery of the isolation structure and electrically connect the source region of the reset transistor, and wherein a second end of the ~~buried-contact~~ local interconnect is located on the active region of the substrate to be used as a gate of a source follower transistor.

2.(original) The CMOS image sensor device of claim 1, wherein the photodiode sensing region is located under the isolation structure.

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3.(currently amended) The CMOS image sensor device of claim 1, wherein a spacer is formed on a sidewall of the ~~buried contact~~ local interconnect.

4. (currently amended) The CMOS image sensor device of claim ~~1~~16, wherein the photodiode sensing region further comprises a doped region with ~~the same a~~ conductivity same as that of the source region of the reset transistor.

~~65~~. (currently amended) The CMOS image sensor device of claim 1, wherein a P type well is further formed under the reset transistor.

~~76~~. (currently amended)The CMOS image sensor device of claim 1, wherein the substrate is a first type conductivity substrate and the photodiode sensing region comprises a second type conductivity doped region.

~~87~~. (currently amended)The CMOS image sensor device of claim 1, wherein the substrate is a P type substrate, and the photodiode sensing region comprises a deep N type well.

Claims 8-15 (cancelled)

16 (new) The CMOS image sensor device of claim 1, wherein the source region is an n-type region.